



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,987	01/04/2002	Edmund W. Figiel	1994.CRG	8730

7590 01/25/2005

Cynthia L. Foulke
NATIONAL STARCH AND CHEMICAL COMPANY
10 Finderne Avenue
Bridgewater, NJ 08807-0500

EXAMINER

TRAN, THAO T

ART UNIT	PAPER NUMBER
----------	--------------

1711

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. Box 1450
ALEXANDRIA, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/039,987
Filing Date: January 04, 2002
Appellant(s): FIGIEL ET AL.

Cynthia L. Foulke
For Appellant

EXAMINER'S ANSWER.

MAILED

JAN 25 2005

GROUP 1700

This is in response to the appeal brief filed 11/10/2004.

Art Unit: 1711

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

Claims 1, 3-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Figiel et al. (US Pat. 6,387,475).

Claims 1, 3-4, 7, 9-10, 14-15, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Eden et al. (US Pat. 6,379,447).

Claims 1, 3-5, 7, 9, 10, 12-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Lydzinski et al. (US Pat. 6,280,515).

Claims 1, 3, 9-10, 14-15, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Nguyen et al. (US Pat. 5,716,441).

Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lydzinski.

Art Unit: 1711

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect.

The amendment after final rejection filed on 6/7/2004 has been entered.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1, 3, 9 and 10 do not stand or fall together, and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

6,387,475	Figiel et al.	5-2002
6,379,447	Eden et al.	4-2002
6,280,515	Lydzinski et al.	8-2001
5,716,441	Nguyen et al.	2-1998

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3-4, 10, 12, 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3, 10, and 19 are indefinite due to the use of “not part of a crosslinked octenyl succinic anhydride-modified starch”. It is unclear to the examiner whether Applicants are referring to the octenyl succinic anhydride alone, octenyl succinic anhydride in a non-crosslinked starch carrier, or other forms different from that carried by a crosslinked starch. Specific definition of the octenyl succinic anhydride is required.

Claims 10 and 12 are indefinite because the claims recite conflicting limitations with respect to the octenyl succinic anhydride. Claim 10 recites on an octenyl succinic anhydride that “is not part of a crosslinked octenyl succinic anhydride-modified starch”; whereas its dependent claim 12 recites on an octenyl succinic anhydride component comprising “a crosslinked carrier starch”. Clarification on the type of octenyl succinic anhydride is required.

Claim 4 is indefinite due to the use of “the adhesive has been crosslinked”. It is unclear to the examiner when and what part of the adhesive is crosslinked. If Applicants mean to indicate

Art Unit: 1711

that the adhesive is crosslinked with a crosslinker after the addition of the anhydride, please state so.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Figiel et al. (US Pat. 6,387,475).

Figiel teaches an adhesive composition and method of making, the adhesive composition comprising a water-soluble polymer and a crosslinked or non-crosslinked (such as hydroxypropyl) starch modified with 3% by weight of octenyl succinic anhydride (see col. 3, ln. 44-48; col. 4, ln. 1-15; Examples III, IV; Table 1; claims 1-6, 13-20).

In regards to claims 1 and 9, although the reference is silent with respect to the improving set speed of the adhesive, since the reference teaches the same composition, the reference's

Art Unit: 1711

composition would inherently have the same properties as those in the instantly claimed invention.

In regards to claims 3-4, 10-11, and 19, Figiel teaches the octenyl succinic anhydride being carried by a non-crosslinked starch carrier (OSA-treated waxy corn) and the addition of a crosslinking agent (aluminum sulfate) (see Example IV).

In regards to claims 5, 12, and 20, Figiel teaches the use of crosslinked starch carrier (see col. 3, ln. 48; Example III).

In regards to claims 6, 8, and 16-18, Figiel teaches the adhesive composition is a polymer resin emulsion based adhesive and that polymer includes ethylvinyl acetate and polyvinyl alcohol (see col. 2, ln. 60-63).

In regards to claim 7, Figiel teaches the adhesive being a starch-based adhesive (see Example III)

In regards to claims 13-15, Figiel teaches the adhesive is used in various applications, such as making a coreless paper rolls (see abstract; claims 18-20).

5. Claims 1, 3-4, 7, 9-10, 14-15, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Eden et al. (US Pat. 6,379,447).

Eden teaches an adhesive composition and method of making, the adhesive composition comprising non-crosslinked starch (enzyme treated maltodextrin) modified with 5% by weight of octenyl succinic anhydride (see Example V).

In regards to claims 1 and 9, although the reference is silent with respect to the improving set speed of the adhesive, since the reference teaches the same composition, the reference's

Art Unit: 1711

composition would inherently have the same properties as those in the instantly claimed invention.

In regards to claim 7, Eden teaches the adhesive composition being starch-based (see Example V).

In regards to claims 13-14, the adhesive is used in various applications, such as making paper laminating (see col. 7, ln. 1-15).

6. Claims 1, 3-5, 7, 9, 10, 12-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Lydzinski et al. (US Pat. 6,280,515).

Lydzinski teaches an adhesive composition and method of making, the adhesive comprising a polysaccharide, such as a crosslinked or non-crosslinked starch modified with 3% by weight of octenyl succinic anhydride (see col. 2, ln. 42-43; Example, claims 1-3, 7).

In regards to claims 1 and 9, although the reference is silent with respect to the improving set speed of the adhesive, since the reference teaches the same composition, the reference's composition would inherently have the same properties as those in the instantly claimed invention.

In regards to claim 7, Lydzinski teaches the adhesive composition being a starch based adhesive, and the composition comprising polyvinyl alcohol (see col. 3, ln. 4; Example; claim 12).

In regards to claims 13-14, Lydzinski teaches the adhesive used in various applications, such as making paper laminating, wood bonding, tissue and towel manufacture (see col. 3, ln. 33-39).

Art Unit: 1711

7. Claims 1, 3, 9-10, 14-15, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Nguyen et al. (US Pat. 5,716,441).

Nguyen teaches an adhesive composition and method of making, the adhesive comprising non-crosslinked starch modified by 3% by weight of octenyl succinic anhydride; the adhesive composition is used in various applications such as paper bonding and case and carton (see col. 1, ln. 44-48; col. 4, ln. 7-19; Example 1).

Although the reference is silent with respect to the improving set speed of the adhesive, since the reference teaches the same composition, the reference's composition would inherently have the same properties as those in the instantly claimed invention.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lydzinski as applied to claim 16 above.

Lydzinski is as set forth in claim 16 above and incorporated herein.

Lydzinski teaches the adhesive composition comprising polyvinyl alcohol (see col. 3, ln. 1-6). The reference further teaches the adhesive composition comprising ethylene vinyl acetate in the prior art (see col. 1, ln. 23-29).

Art Unit: 1711

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have included ethylene vinyl acetate into Lyndzinski's composition, because the prior art teaches that the use of ethylene vinyl acetate would enhance stability of the adhesive.

(11) Response to Argument

Throughout the Remarks, Applicants contend that none of the references teaches the use of OSA alone. This contention is correct. However, the claim language does not specify the use of OSA alone. Claims 3, 10, and 19 recite, OSA as "not part of a crosslinked octenyl succinic anhydride-modified starch", which is open to OSA as part of other carriers as well as OSA alone. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As pointed out in the prior Office action of January 6, 2004 and the paragraphs above, the references of Nguyen and Eden, each teaches the use of a non-crosslinked OSA-modified starch. The references of Fiegel and Lydzinski, each teaches the use of a crosslinked and a non-crosslinked OSA-modified starch. Therefore, all of these references teach the presently claimed invention. Moreover, all references teach the amount of octenyl succinic anhydride within the range as disclosed in the instant specification (see page 4).

Since the composition of each reference is the same as presently claimed, the references' composition would inherently have the same set speed, unless applicants include other components to distinguish the presently claimed invention from the prior art.

Art Unit: 1711

In response to applicant's argument that there is no suggestion to add EVA to the polysaccharide adhesives of Lydzinski, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Lydzinski teaches the use of polyvinyl alcohol and other additives commonly used in the art (see col. 3, ln. 1-6). Therefore, it would have been obvious to one of ordinary skill in the art to have added EVA into the adhesive composition of Lydzinski. This is because the use of EVA in resin-based adhesives has been known in the art to increase stability.

Hence, Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

For the above reasons, it is believed that the rejections should be sustained.

Art Unit: 1711


Respectfully submitted,


tt

January 12, 2005

Conferees


THAO T. TRAN
PATENT EXAMINER


James Seidleck


David Wu

Cynthia L. Foulke
NATIONAL STARCH AND CHEMICAL COMPANY
10 Finderne Avenue
Bridgewater, NJ 08807-0500